Dr. Yuegang Zuo December25, 2020

EDITOR-IN-CHIEF

Journal of Endocrinology Research

Dear Dr. Yuegang Zuo

Merry Christmas and Happy New year!

We here by submit our manuscript entitled “**Relationship Between Serum Testosterone, Leptin, Interleukin-6 (il-6) Level and Insulin Sensitivity in Non-obese and Obese Male Subjects in Magway Region, Myanmar”** to Journal of Endocrinology Research. On behalf of all the contributors I will act as a corresponding author for communicating with the journal from this point onward. Submitted manuscript is a Research Article and the findings in this article are the results of our own original work. Obesity is a chronic inflammatory condition with important public health problem, especially for T2DM. Leptin and IL-6 are known as low grate inflammatory markers which released from adipose tissue. Studies on men with metabolic syndrome showed that serum testosterone level was significantly lower when compared with men without metabolic syndrome. Thus serum leptin, IL-6 and testosterone level attract considerable attention in development of insulin resistance in inflammatory state of obesity. Our results provided the evidence that obese men are more likely to have low testosterone, high inflammatory markers leptin and IL-6 which were associated with decreased insulin sensitivity. This manuscript has not been submitted, accepted or under editorial review for publication elsewhere. We would like to request the necessary process for publication in Journal of Endocrinology Research.

We are looking forward to hearing from you.

 Sincerely yours,



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**Type of article:** Original

**Title of the article:** Relationship Between Serum Testosterone, Leptin, Interleukin-6 (il-6) Level and Insulin Sensitivity in Non-obese and Obese Male Subjects in Magway Region, Myanmar

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1. **A brief description of the novelty and importance of the findings detailed in the paper**

Obesity is a chronic inflammatory condition with important public health problem, especially for T2DM. Leptin and IL-6 are known as low grate inflammatory markers which released from adipose tissue. Studies on men with metabolic syndrome showed that serum testosterone level was significantly lower when compared with men without metabolic syndrome. Thus, serum leptin, IL-6 and testosterone level attract considerable attention in development of insulin resistance in inflammatory state of obesity in men. Ourresults provided the evidence that obese men are more likely to have low testosterone, high inflammatory markers leptin and IL-6 which were associated with decreased insulin sensitivity.

1. **Declaration**

This manuscript has not been submitted, accepted or under editorial review for publication elsewhere. We would like to request the necessary process for publication in Journal of Endocrinology Research.

1. **Conflict of interest: Nil**
2. **Sources of funding: Nil**
3. **Informed Consent**

This section confirms that written consent was obtained from all participants prior to the study.

1. **Ethical Approval**

This paper received the ethical approval of Ethics Review Committee, University of Medicine Magway

1. **Authors Contributions:**
2. Prof. Mya Thanda Sein
	* Principal Investigator
	* Conceptualization
	* Writing the protocol
	* Ethical approval submission
	* Methodology
	* Project administration
	* Supervision of the investigation
	* review and edit the manuscript draft critically for important intellectual contents
	* final approval of the version to be published
3. Dr Zarchi Theint Theint Hlaing
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* take informed consent and assent form
* Investigation
* Assist PI in performing blood sampling
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* take informed consent and assent form
* Investigation
* Assist PI in performing blood sampling
1. Dr. Yin Thu Theint
* statistically analyzed and interpreted the data
* prepared the first draft of manuscript
1. Dr Soe Minn Htway
* Methodology
* Conceptualization
* Supervision of the investigation